DOCUMENT RESUME

ED 385 411 RC 020 164

TITLE	Technology in Rural and Small Schools. 1994-1995 Laboratory Fellows Teacher Recognition Program. Outstanding Teaching Practices Series, Volume 7.
INSTITUTION	Regional Laboratory for Educational Improvement of the Northeast & Islands, Andover, MA.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	[95]
CONTRACT	RP91002008
NOTE	22p.; A project of the Rural, Small Schools Network.
AVAILABLE FROM	Regional Laboratory for Educational Improvement of the Northeast and Islands, 300 Brickstone Square, Suite 950, Andover, MA 01810.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Class Activities; *Computer Uses in Education; *Creative Teaching; *Educational Practices; Educational Technology; Elementary Secondary Education; *Instructional Innovation; Personal Narratives; Primary Sources; *Rural Schools; *Teacher Developed Materials; Telecommunications
IDENTIFIERS	*Teacher Initiated Activities; Telematics

ABSTRACT

Four rural teachers are honored for their work in technology in the classroom. In the process of developing their programs, these teachers worked with students to integrate technology into the curriculum; inspired other teachers to be more intrigued by technology; and included the community, inviting their input and ideas. Portfolios in narrative form are presented detailing each teacher's educational background, teaching philosophy, and program. Patrick Rusiecki developed a project-based curriculum for his industrial arts classes. Using a computer-aided drafting program, his students (with town professionals) planned, designed, and built construction projects for the town. After encountering obstacles with E-mail, Carol Miller and her second-grade Maine students created a project in which they exchanged information via video and fax with second-grade students in Hawaii. Frances Lacinak brought National Geographic's KidsNet into her school. By collaborating on science projects with other classrooms around the country, as well as with actual scientists, the students learned scientific concepts while having fun. Janet A. Brown discovered the America Online Scrapbook USA Writing Project that links elementary school students and teachers nationally in designing and implementing writing projects on-line. She used this network to develop book discussion, essay writing, and conferencing across schools. (TD)

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Outstanding Teaching Practices Series, Volume 7

Technology In Rural and Small Schools

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1994-1995 Laboratory Fellows
Teacher Recognition Program

A Project of the Rural, Small Schools Network

The Regional Laboratory
for Educational Improvement of the Northeast & Islands

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Outstanding Teaching Practices Series, Volume 7

Technology In Rural and Small Schools

1994-1995 Laboratory Fellows
Teacher Recognition Program

A Project of the Rural, Small Schools Network

The Regional Laboratory
for Educational Improvement of the Northeast & Islands

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Published by:

The Regional Laboratory for Educational Improvement of the Northeast and Islands
300 Brickstone Square, Suite 950
Andover, MA 01810
(508) 470-0098

This publication is sponsored wholly or in part by the U.S. Department of Education, Office of Educational Research and Improvement, under contract number RP-91-002-008. The content of this publication does not necessarily reflect the views of the Laboratory, the Department, or any other agency of the U.S. Government.

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Introduction

Innovative teachers everywhere are discovering ways to introduce technology to their students. For rural educators this can mean improvising with few resources and developing a homegrown alternative for integrating technology into the curriculum. These teachers are finding new ways of teaching, challenging traditional visions of learning, and bringing their students into the 21st century with a broader view of themselves and the world around them.

From a writing exchange across the country to a project-based industrial arts curriculum, the four profiles in this book look at how technology can be integrated into the curriculum to enhance learning.

The Regional Laboratory for Educational Improvement of the Northeast and Islands' Seventh Annual Teacher Recognition Program for 1994-1995 honors four rural teachers for their work in technology in the classroom. The teachers were nominated for this award by their building administrators. The nominees prepared portfolios detailing their educational backgrounds, teaching philosophy, and programs, which were then used as the basis for selection. In addition to the title of 1994-1995 Laboratory Fellow, each honoree receives a $500 honorarium.

The teachers featured in this book also presented their work at the Regional Laboratory's Designing Learner-Centered Schools Conference last fall. This book includes their portfolios and quotes from their presentations. It is a unique view of the voices and learnings of each of the teachers as they delved into the new universe of technology in their classrooms, schools, and communities.

In the process of developing the programs detailed here, the four teachers explored their own potential as educators and as learners. They worked closely with their students to improve the way technology could be integrated into the curriculum; they influenced other teachers, inspiring them to be less resistant and more intrigued by technology; and they included the community in different aspects of the programs, inviting their input and ideas. The teachers' stories demonstrate their resourcefulness in a system with limited access to technical assistance; show their concern for the learning and growth of their students; and explain the daunting task of taking something completely new and bringing it directly into the classroom. Through these projects the teachers gained new insight into time and learning, students' writing potential, students' critical thinking and planning abilities, and the importance of providing an audience for students' work and accomplishments.

We hope you benefit from the inspiring and helpful ideas of this year's honorees. Please join us in honoring these outstanding teachers, the 1994-1995 Laboratory Fellows.

Patrick Rusiecki

Ware High School
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John Parkhurst
Principal
Ware High School

Superintendent
Paul Demers
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School Enrollment
355 students in 8-12

District Enrollment
1270 students in K-12

Patrick Rusiecki developed a project-based curriculum for his industrial arts classes. Using a Computer-Aided Drafting program, he set up heterogenous, cooperative and multiage groups of students to design and build construction projects for the town of Ware, Massachusetts. His students communicated with town professionals on the planning and learned the intricacies of construction work from start to finish.

"We designed this playground, 60,000 square feet ... a shed, a firetruck for a day care center, a hair styling salon, a picnic area for senior citizens, a garden for the school courtyard, and a gazebo. These students did not know how to use a hammer when they started."

I have been a secondary educator for twenty-two years and have taught a variety of programs, including wood shop, drafting, computer-aided drafting, photography, and machine shop. I have a great love for my work and I continue to use my skills whenever possible in my free time. My teaching philosophy basically utilizes my firm belief that "students learn by doing."

The learning environment of the classroom is fairly casual. The students are divided into small groups and each individual is responsible for a separate task. The program includes seven freshmen, twenty-one sophomores, twenty-three juniors, and eighteen seniors. The students are able to move about freely to gather information and discuss the assigned projects.

The technology in the classroom is fairly advanced, with eleven 386-16 drafting computers capable of implementing several programs. We also have a plotter, a laser printer, a standard printer, and basic tools used for construction.

The focus of the program is to complete the desired drafting and building task and to give the students a positive attitude toward learning. The program uses a hands-on approach and requires interaction among students to develop their communication skills and teach them to work with others effectively and efficiently. This approach to learning allows students to develop responsibility and have a feeling of importance and accomplishment. The program requires ample knowledge of the Auto Computer-Aided Drafting 10 program (CAD). The development and design of the desired project on the computers involves in-depth thought and creativity. Construction techniques are needed to complete the program requiring knowledge of basic construction materials and uses, as well as safety techniques. The computer program aids the student in estimating the list of materials needed for construction. Cost and approximate construction time can then be calculated.

The main goal of the program is to involve the students in the community by using CAD to design and complete a project for the town of Ware. A small group of students design and eventually build a given project. One such project was to design a wooden fire engine (5' x 10') for a local day care center. The project was discussed in class and a group of four students was selected. The students then began research, using pictures and reviewed specifications, before beginning the actual design. Working together, the students used the CAD program to develop a rough design which was presented to the day care center for review. Changes were then made to incorporate the director's specifications and a cost estimate was submitted. The next step was to actually construct the fire engine using the correct materials. When the project neared completion, it was moved to the designated site.

The students must utilize many skills to complete this project. the most obvious is the use of the Auto CAD program to create the design. Students also develop math skills by using calculations to attain amounts and numbers of materials; communication skills when working together in groups and when presenting the project to the prospective owner; and skills on how to correctly use tools for basic woodworking.

I believe the program is a success. This hands-on learning concept allows the students to feel involved in the assignment. They are learning and yet they are enjoying themselves. Students develop pride in the work, and therefore work more intently and effectively.

"I had one student who was suspended ten days per month, started in CAD, and said it was the first time he understood what was going on. He hasn t been suspended for two years since he started doing this sort of work."

Students feel a real sense of accomplishment when they complete a project for the community. The people in the town recognize the students for their efforts and are very appreciative. This positive reaction from the townspeople lessens the gap between the school system and the community, and helps communities to work together.

The students are evaluated on the group effort and success and on their individual contributions. Each student is responsible for the completion of a part of the project. For example, each student designs one view of the proposed construction project and one person serves as an overseer to ensure the project is completed. The students are graded on participation and effort to complete the project. Factors are considered such as difficulty, time allotment, and cooperation among groups to effectively complete the given task. Students are also asked their opinion of the project and the interaction of the group.

The program has proven to be a major success among the students, the faculty and the townspeople, though it has also had some minor complications. Expense, time shortage, and lack of some technology caused minor setbacks and could be further developed.

The program could be developed by further involving the community and others not directly affiliated with the school system. Perhaps local businesses could contribute to the development of the community through small, and eventually larger projects by the students. Research could be expanded to access local engineering colleges and communication with similar programs would be very beneficial. The technology could could also be developed by creating a computer link to the job site, allowing for important alterations. The further development of computer technology would link the school system with the community.

This new method of teaching allows for greater student involvement and participation in the classroom and has proven to be more interesting to the students and myself. Although preparation for class is much more extensive, the end result is spectacular. Before using the technology, students worked mainly from a book. The room was very quiet and it took virtually minutes to prepare for class. However, many of the students and I were bored and were searching for a new method. As a teacher, I have become more of a coach than a lecturer. The students are able to discuss problems and ask questions if they need help. The role of the student has been transformed from passive listener to active learner. They are more eager to discuss projects in and out of the classroom. Many students talk with other teachers to find additional information, such as complex math and physics equations. Therefore, the entire school feels involved and participates in projects.

Carol Miller

Sherwood Heights School
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Thomas Deschaines
Principal
Sherwood Heights School

Superintendent
Barbara Eretzian
Auburn School Department
High Street
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School Enrollment
365 students in K-3

District Enrollment
4414 students in K-12

After encountering a variety of obstacles with email, Carol Miller and her 2nd grade class discussed their problem, and together they came up with a solution. They created a project in which they exchanged information via video and fax with 2nd grade students in Hawaii. She included parents in the learning and evaluation of this project. Students came away with knowledge of another culture and skills in solving problems, and everyone involved — students, teacher, and parents — came away with a new excitement for learning.

"So many of the things that the children learned from this project were items that we never intended or imagined they would come away with."

I earned my associate of arts degree in early childhood education in 1974 and bachelor of science degree in elementary education with a concentration in math/computer science in 1992 at the University of Maine at Farmington. I am a second grade teacher. I am intrigued with the potential of technology to restructure schools, deliver curriculum, and affect the role of the teacher in the classroom.

Children and learning have always been a priority for me. I teach because I love children and am filled with joy when students become actively involved and excited about their learning. My teaching philosophy is very simple: Each child is a unique individual. It is the teacher's job to identify each student's strengths and needs. The delivery of instruction in the classroom should compliment each child's strengths and needs and prepare them to become lifelong learners.

I have twenty-one students ranging from seven to nine years of age. Sherwood Heights has a 51 percent transient rate and most of our children are from low socio-economic backgrounds. Many are from single parent homes. It is both difficult and rewarding working with these children. Within the classroom, I try to provide a warm, safe, and stable environment where students learn essential life skills such as decision making, problem solving, coping and communicating. It is my belief that these skills will aid them in making transitions and becoming resilient.

In my classroom I have one LC 520 Macintosh computer with an internal CD-ROM, a Style Writer II printer, and a scanner. Available to borrow and use within our building are a camcorder, televisions, VCRs, and a fax machine. The class has access to a computer with email and internet capabilities housed in the principal's office.

My project came about as the result of trying to expand teachers' knowledge of technology and open their minds to the potential benefits of its use. There are twenty-one classrooms in our school with six Apple IIC, E and GS and three Macintosh 520 computers. We also have one LC III for Chapter I use. I volunteered to act as a resource person in technology for my building. In order to whet their appetite, I began conducting an inservice workshop on computers for the teachers.

"I wanted to show that the computer could be used for other things besides drill and practice software."

As teachers became more proficient and comfortable with computers, I chose to take it one step further and demonstrate ways computers could be used effectively in a given project. I decided the best way to do this was through modeling. Other teachers in my building needed to see that it could be done. An opportunity arose in my classroom while working on a segment of our social studies curriculum called Our Neighbors/Community. Taking advantage of the unit and its potential to provide a meaningful learning experience, I designed a project that would allow students to form a relationship with a diverse neighborhood/community through email. I wanted my class to be able to compare their lives, experiences, neighborhoods, and community with other children outside of their limited environment. Wanting to start the project as soon

as possible, it was necessary to make the online contact with a friend, Mrs. Stitham in Kailua, Hawaii, who put me in touch with a second grade teacher, Helen Yamasaki at Aikahi Elementary School.

The first obstacle was encountered when Sherwood Heights' email was permanently wired. The system was unstable and failed due to underground wiring and other complications. Now how could my students communicate? I had to problem solve and decided to involve my students in the process. "We can fax letters!" said my class. Mrs. Stitham let us know that the Hawaiian class would fax us information. The fax from Hawaii did not arrive. The students were getting upset. I did not realize that we did not have a dedicated phone line for the fax. Realizing that the fax was not transmitted, Mrs. Stitham went to Mrs. Yamasaki's room and made a videotape of her class. When the video arrived we dropped everything we were doing, tore open the box and watched the video. What an exciting day!

The excitement of the project was contagious and spread throughout our school. The outcomes have been far greater than anything I had envisioned. Each time we corresponded with the Hawaiian school, my original goals expanded. Some of the obvious benefits were parent interaction, community involvement, student-centered learning, brainstorming, decision making, prioritizing, and very creative problem-solving.

Excitement for learning was fostered in content areas such as writing, history, math, science, reading, art, music, diversity, and cultural heritage. Every time we watched the video or read the letters my students discovered something new. The Hawaiian students noted that pineapples are very inexpensive in Hawaii but are much more expensive in Maine. They began to notice a relationship between local products and prices. The students were then able to discern a similar relationship between pineapples and Maine lobsters. The students realized that airplane transportation and the numerous people needed to handle the products cause the cost to go up. They also realized that both of these products can only survive for a limited amount of time and still be eaten. They concluded that this also makes the price of the product higher.

At this point, we wrote letters to our Hawaiian pals and shared local community culture. My students took the responsibility for deciding exactly what we should send to our Hawaiian partners and what information they should include in their introduction video. Some of my students willingly gave up recess time to use the computer to finish their letters so that they could be included in the package. They took on the active roles of teachers, planners, time managers, and coordinators as I became a learner and facilitator for their needs.

My students had noticed that the children in Hawaii don't wear shoes in school. They noticed that when the bell rings in Hawaii the children just run outside. So that was one of the first things they decided; we needed to show the Hawaiian children how long it takes to get dressed to go outside in the winter." One package that we sent to Hawaii included a book, *L.L. Bear's Island Adventure* (part of a series from L.L. Bean), which talks about the change of seasons in Maine. We also sent a road map with our city highlighted, an L.L. Bean catalog, *Moose on the Loose* (a story about a moose that wanders into Bangor, Maine), material from the Maine Transportation Bureau, and other Maine-Made products.

Another package included a film made by a parent from another class that showed sap being collected and processed into maple syrup. Our Hawaiian friends started reading product labels. They were very surprised to find that commercially purchased supermarket syrups have no maple syrup in them.

We exchanged state flags and my students were amazed to see the United States flag outside of the Aikahi School. They had a difficult time understanding that even though Hawaii is a separate island, it is still part of the United States. They would look on the map and see where Hawaii was and they just could not understand how that was part of the United States. Now we fly the Hawaiian flag in our classroom; they fly the Maine flag in their classroom. We also learned that the Hawaiian language is very different from ours and that it was meant to be seen more than spoken.

Another unexpected and major impact on my students' learning was the setting of higher standards for their work. Mrs. Yamasaki's class sent each individual student a letter. I was surprised to see the superior fine motor skills of our partner class. They wrote on a single-lined college-ruled paper and had extremely neat manuscripts. My class had written all year on double-lined primary paper and needed work on writing. When it came time for my students to write back to their pals, you should have seen the superior work they put out. I asked them how they had done such a wonderful job writing their letters and was told that they couldn't let their new friends see their messy writing, so they did their "best" work. They did this on their own! My class told me that if other second graders wrote that nicely then they knew they could do it too. Student to student modeling done over a great distance — it was wonderful!

Now that summer is here, my students are writing letters to their new friends on their own. Mrs. Yamasaki and I hope the children will continue to communicate for years to come. Some of the students talked about visiting each other and started to learn about the cost of traveling.

The evaluation of the project was done partly by the children's parents. I made a duplicate tape of our first video for parents to view and critique. The tape went home with each student in my room. Each night after a family watched the tape the parents wrote comments in a log book and each morning we read their remarks. If we said the Pledge of Allegiance before I read the log book, I had five children telling me that I'd forgotten about the log book.

"This project gave us some parent involvement which is not something we have a lot of at our school. I would see some of these families at the grocery store and they would say that it was nice to know what's going on."

I needed to complete an end-of-the-year report. I asked my students to help me to remember things we had done in our class and the first thing mentioned was our

project with the school in Hawaii. When we were getting ready to have our school yearbook published, my students made sure that our "Hawaiian Friends" were included on the page about our class and the activities we had done during the year. My classroom attendance was much better second semester, perhaps because the children didn't want to miss anything with this project.

Mrs. Stitham [the woman who had originally arranged the exchange], has a summer home here in Maine, and my class had a special surprise visit from her. She answered questions and read the Hawaiian Legend story to my class. Our partners sent us chocolate-covered macadamia nuts to sample. This activity was the perfect ending to a wonderful project.

I have never thought of myself as a flexible person, however, in working with this project my best laid plans had to be tossed aside many times. The lesson that had just arrived from Hawaii became the lesson of the day. I learned to adapt quickly. This project reinforced my belief that each student is an individual and that learning takes place in many different ways. Each student derives his or her own meaning and learning from different aspects or parts of a program or project. As I said previously, I became a learner and facilitator, sometimes even becoming the assistant to the students.

I was able to report back to my colleagues all the great things that were happening. I shared information — especially the video — when others were interested. One class in our school was learning about making a Hawaiian lei. Our partners had included this in the tape of their May Day celebration, so we shared the tape. Other staff in my building would speak to my students about the project, which made the students feel important.

Helen Yamasaki and I have already decided to continue this project next year. Electronic mail is finally stable in our building and we hope to have direct communication in the fall. Helen and I would like to coordinate lessons so the timing will tie in better to the themes in each class. I would like to have a student book topic exchange. This could be done via email. I have also thought that our students could write their own books to exchange with each other.

Helen and I are both excited about next year and hope to be able to share new information that is unknown to each group of students. Helen has suggested doing more work on seasons since most of her children have been unable to experience the colorful fall foliage. Still another project might be to design a multi-media presentation on the computer.

Next year I would like to have a celebration night to kick off or finish the project at each site and make it possible for parents to see the students communicating with each other or watch a video with the whole class present. Maybe we could watch together with our partners by satellite. My class would serve Hawaiian "pupu" at this event and our partners would serve Maine or New England treats.

In reflecting back on this year's experience, better planning ahead might have solved the communication problem with email, however, if this had happened, we would have missed so much!

Frances Lacinak

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Gail Fromaget
Principal
Chester Elementary School

Superintendent
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School Enrollment
550 students in grades K-6

District Enrollment
950 students in grades K-12

Frances Lacinak, a physical education teacher and computer educator, brought National Geographic's KidsNet into her school. By communicating and collaborating on science projects with other classrooms around the country as well as real life scientists, Lacinak's students learned scientific concepts and skills while having fun. Her expertise has inspired other educators in her school to start technology projects with their students.

This technology project "made the students go outside of their little world."

I have thoroughly enjoyed working with children of all ages for the past twenty years. This experience has taken me from inner city school districts to my present district in Chester, New York. I began teaching as an elementary physical education

instructor and later I coached both girls and boys sports at the intermediate and high school levels. It was not until my graduate studies that I decided to become involved in the new horizons of technology and all that it has to offer today's student. I recently received my master of science degree in computer education.

I feel the most important aspect of children's lives is that they feel good about themselves. It is only then that we can explore and help them discover areas of learning. If children have good self-esteem they will be open to listen, laugh, and enjoy their learning experiences.

Cooperative learning, decision making, trial and error are all skills I observe in watching toddlers at play. I believe it is necessary to have fun while learning — no matter what age or academic level. When children are having fun successful learning is limitless. I make the boundaries clear and fair and encourage students to test but stay within these limits, as a result we are both having fun and learning from one another, unafraid of making mistakes and excited with success.

In our computer lab we have seven Macintosh, eight Apple IIGS, and fifteen Commodore computers. One GS is hooked up to a dedicated phone line, with a modem. I currently teach computers to fourth, fifth, and sixth grade students. Each grade level has three class sections with approximately 20-23 students. We meet for 8-10 sessions of forty minutes each.

The networking project that I implemented is the National Geographic Society's Kids' Network known as "KidsNet." I do this project at three different grade levels, each working on a different unit of study. This project is developed over a period of six weeks, in regularly scheduled classes and in other time slots in addition to their scheduled computer classes. The following are the areas of research and the specific grade level involved in each.

• Grade 4	Acid Rain
• Grade 5	What's in Our Water?
• Grade 6	Solar Energy

All of these units incorporate science with other areas of the curriculum. I will explain the Acid Rain unit done with my fourth grade classes.

I give the regular classroom teachers a kit of science experiments and a timeframe in which to complete the work. The students, working in cooperative groups, are responsible for different aspects of the project. We take turns sending and receiving information to and from other schools. This project is motivating to both faculty and students, and frequently it is difficult to tell who is the more excited of the two!

"We began teaching as a team. We had to move beyond what was comfortable in our ways of teaching."

The package of materials, developed by the National Geographic Society, is a science-based telecommunications curriculum. The students investigate issues the same way scientists do by conducting original research, applying scientific method, collaborating with other student scientists, and finding their own answers. We are linked to other students in the United States, Canada, and in other countries. By exchanging latitude and longitude, we are able to determine where the other school communities are located and use computer-generated maps to plot these locations. The students use the computer to record information, write letters, make graphs of the data, print maps, and send information electronically to be shared with others. Cooperative learning is necessary for many of the lessons. This is truly an interdisciplinary approach to teaching science, as geography, social studies, language arts, mathematics, statistics, and computer literacy are all integral parts of this project. Students and teachers are eager to explore and find out answers and become critical thinkers along the way.

"The students had to learn to work like scientists. They had to make sure their specimens didn't get contaminated, they had to be precise and specific, and they had to redo the testing if it didn't seem correct."

The objectives of the project vary from week to week. The following is a breakdown of the sessions and their corresponding objectives:

• Session 1 and 2	Learning about acids
• Session 3 and 4	Investigating our rain
• Session 5 and 6	Discussing the effects of acid rain on our environment
• Session 7 and 8	Observing and reporting the effects of acid rain on non-living things
• Session 11 and 12	Reviewing ideas and considering what can be done about acid rain

The first activity is to introduce the students to the "unit scientist" and the classes on our hub team (the group of schools with which Chester works most closely). An introductory letter is sent to all the schools in our hub team describing Chester Elementary School, our students, and significant points of interest of our community. After sending our letters and research data (students design rain collectors, collect rain, and measure acidity using pH paper) to our hub team we receive letters and data from other schools. The anticipation of running to the computer lab every morning to see if we received information from other schools is an excitement shared by all!

The information gathered by all the schools involved is reviewed by a unit scientist who uses our research, as well as that of our hub team schools, as part of their

studies. The unit scientists are from Ayre Resources Laboratory in Maryland. They send a 4-5 page letter to the kids discussing concerns that would affect the water supply, why they get ranges of readings, explaining the differences in pH balances in Asia and the US. The bottom line is the environmental issue.

During the next few sessions, we spend time exploring how acid rain is formed, discussing how winds affect the geographic distribution of acid rain, and investigating sources of acid rain-producing gases. The students send any data they collect to the hub team of schools. With the other schools' data, our students make predictions, look for patterns, and generate graphs.

As we work on this project, it is clear that working in cooperative groups, teaming with classroom teachers, and forming group consensus are vital to the program's success. The students are responsible for completing the lab sessions and drawing conclusions and opinions from the information gathered. They review their original ideas and questions concerning acid rain and find ways to report these to an outside audience. In evaluating the students, the classroom teachers and I observe the groups at work, review lab worksheets and experiment reports, and observe group discussions. An activity sheet is given at the end of the project and used as a tool for evaluating students' knowledge of the areas covered during the previous weeks.

This project has changed my traditional way of teaching computer skills to my students. By collaborating with colleagues and integrating computers with other areas of the curriculum, we quickly reinforced the idea that learning can and should be fun for everyone involved.

In critiquing this project, I can see how extending the project beyond the classroom would be interesting and beneficial to the entire school community. Students could share information and locations of the schools in our hub team during the morning announcements, write reports for the school newspaper, post graphs and maps in the building so that the excitement would reach beyond our 4th grade class.

This project has made an impact on the teachers. When we started the project, the building was buzzing, the principal and other teachers were asking if messages had come in from other schools. This year we have 3rd, 4th , 5th, and 6th grades all participating. Teachers are less afraid to come to the lab. [The school] hired a computer coordinator. We've been challenged to come out of our comfort zone and do something that maybe we're not so comfortable with. Learning can be fun, and when it is, how quickly word gets around!

Janet A. Brown

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School and District Enrollment
850 students in K-6

Janet Brown is a fifth grade teacher. She discovered the America Online Scrapbook USA Writing Project that links elementary school students and teachers nationally in designing and implementing writing projects online. She used this network to develop book discussion, essay writing, and conferencing across schools. The children benefitted especially from the outside audience and input from their peers online.

"I started off in a traditional four-walled classroom with the basals and the textbooks and the workbooks and you measured by tests, not [by whether] the students were excited by what they were doing ... this computer put a new window in my classroom."

I became interested in teaching while serving as a clerk librarian in a Michigan high school. I earned my bachelor of arts degree in social studies at Elmhurst College in Illinois in 1977. Nine years later I received a master of arts degree in religious education at Fairfield University in Connecticut. My sixth year teaching certificate in

education from Sacred Heart University came two years later. I have been teaching fifth grade children at Beecher for the past six years.

I approach teaching with the objective of helping each child be the best that he or she can be. I believe that children need to be taught and reminded that learning takes perseverance and commitment; that it doesn't just happen. I also believe that it's okay for children to struggle, to make mistakes, because humans learn from their mistakes. I see teachers as enablers, who also give support and encouragement.

There were 21 students in my language arts class this year, a homogeneous grouping across three home rooms. The setting is an open pod, with six classes in session simultaneously. In my language arts class, there are three or four desks placed together three or four in cooperative groupings, where the students use Macintosh (laptop) PowerBooks at their desks, as well as the regular Apple IIGS and Macintosh Classic II computers in each classroom. The students also have access to the Macintosh computer lab in a building nearby. The laptops are used for process writing and the students do their class-level essay writing publication in the lab.

"We have a lot of equipment but I wasn't using it, the children were using it. They were my teachers; if I wanted to know something about computers, they taught me."

Writing improvement and global awareness were fifth and sixth grade themes at Beecher Road School this year. The name of the networking project that I implemented this past year is the ScrapBook USA Writing Project, coordinated by the Electronic School House on America Online. I learned of this project at the 1992-1993 meeting of the Connecticut Educators Computer Association (CECA). It involves writing across grade, curriculum, and country.

Sixteen schools were involved. My Beecher language arts class was one of five classes that exchanged and commented on each other's writing. The project started in March with Hello Day, when each participating class emailed a letter describing itself. We wrote one class Hello letter and posted it on Hello Day in the Electronic Schoolhouse. The Hello letters provided a marvelous beginning. They literally described the lives of people from other places in the United States.

"We talked to a school from Vermont, California ... Iowa, when there was the flooding of the Mississippi River. The kids could sit down and talk to these students ... and ask them questions right away."

After exchanging the Hello letters, essay writing followed, as students began work on ScrapBook Creations. My students wrote individual essays called "Pourquoi Myths" (from their classroom reading of Island of the Blue Dolphin) to explain specific natural phenomena occurring in a pre-scientific civilization. This complemented the Beecher fifth grade language arts curriculum, because we were already working on the Pourquoi Myths in my classroom.

Their essays were bundled into several groups and transmitted to other schools. Beecher students received essays from four other schools. Student papers were then shared and my students exchanged personal responses and reactions to other students' work from the four schools with which they were intensively involved. My students sent thank you notes when other students sent comments on their work.

Students kept other classes posted about their writing activities each week through the email ScrapBook Chronicle and teachers shared ideas with each other as well. The Online Chat involved a scavenger hunt based on the Hello letters which were displayed on a bulletin board in my classroom. For the finale on April 29 there was an hour-long network "food fight" in which classes used aliases, provided clues about their identity, and then transmitted alliterative three-word food names using letters corresponding with the name of their school. One Beecher food, for example, was Broiled Brown Bananas.

I saw how excited the children became when they were talking with peers, some of whom were even a year or so older. Peer evaluation was positive, forthright, and accepted. Through their evaluations, my students told me what they had accomplished in the Scrapbook USA Writing Project. I saw how excited my students were when they saw how well they were doing in their work; they were pleased with what they had done, how their work looked to other students, and how it looked alongside other students' work. I was thrilled that my children learned a lot from their peers!

"A lot of neat things would never have happened if I would not have stumbled onto this."

In the future I would do more cooperative learning, both in my regular class and in my summer school teaching. We will do more book sharing next time. There will be more teacher-to-teacher exchange. I pushed my students this year to make deadlines, though they often found it quite difficult. In the future I will be more careful not to discourage them by asking for too much.

Children CAN take a challenge! We CAN stretch them. We CAN have high expectations for them because they DO meet the challenge and want to do it, and they feel good about themselves as a consequence. I will definitely continue this project as a goal for next year!

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